

AMENDED IN ASSEMBLY MAY 25, 2012

AMENDED IN ASSEMBLY APRIL 17, 2012

AMENDED IN ASSEMBLY APRIL 9, 2012

CALIFORNIA LEGISLATURE—2011–12 REGULAR SESSION

**ASSEMBLY BILL**

**No. 2249**

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**Introduced by Assembly Member Buchanan**  
**(Coauthors: Assembly Members Huffman, Wieckowski, and**  
**Williams)**  
**(Coauthor: Senator Wolk)**

February 24, 2012

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An act to amend Sections 2861, 2862, 2863, 2864, 2865, and 2867.1 of the Public Utilities Code, relating to solar energy.

LEGISLATIVE COUNSEL'S DIGEST

AB 2249, as amended, Buchanan. Solar Water Heating and Efficiency Act of 2007.

The Solar Water Heating and Efficiency Act of 2007 makes findings and declarations of the Legislature relating to the promotion of solar water heating systems and other technologies that reduce natural gas demand and define terms for purposes of the act. The act requires the Public Utilities Commission (PUC) to evaluate data available from a specified pilot program, and, if it makes a specified determination, to design and implement a program of incentives for the installation of 200,000 solar water heating systems, as defined, in homes and businesses throughout the state by 2017. The act requires the PUC, in consultation with the State Energy Resources and Conservation Commission (Energy Commission) and interested members of the public, to establish eligibility criteria for the solar water heating systems

receiving gas customer funded incentives. The PUC is required to establish conditions on those incentives. Pursuant to the act, a solar water heating system is defined to be a solar energy device that has the primary purpose of reducing demand for natural gas through water heating, space heating, or other methods of capturing energy from the sun to reduce natural gas consumption in a home, business, or any building receiving natural gas sold or transported for consumption in this state and that meets or exceeds the eligibility criteria. The act excludes solar pool heating systems from the definition of a solar water heating system.

This bill would expand the definition of a solar water heating system to include a facility meeting the specified requirements and would qualify the exclusion from the definition of a solar water heating system as being limited to a single-family residential solar pool heating system. The bill would expand the statement of legislative intent and program requirements to include homes, businesses, and other buildings or facilities of eligible customer classes, including single-family and multifamily residential, commercial, industrial, ~~municipal~~, governmental, nonprofit, and primary, secondary, and postsecondary educational customers receiving natural gas service within the state, as being sites where the 200,000 solar water heating systems may be located, to encourage the deployment of solar heating systems in both residential and commercial markets and in each end-use application sector in a balanced manner, to state that the commission should monitor and adjust incentives created by the act so that they are sufficient to significantly increase markets, and to state that the commission should ensure that increased, uniform growth in each market sector is achieved through program incentives or structure adjustments that prevent overutilization of program resources by any single sector. The bill would revise certain eligibility criteria as being applicable to installation of solar water heating systems at ~~municipal~~, government, nonprofit, and educational sites and would require the commission to determine an appropriate division of funds between solar water heating systems that are and are not solar pool heating systems. The bill would require the commission to complete a review of whether the rebate levels established by the commission will be sufficient to spur investment to reach the goals of the program and to report the results of the review to the Legislature. The bill would make other technical, nonsubstantive changes to the act.

Under existing law, a violation of the Public Utilities Act or any order, decision, rule, direction, demand, or requirement of the commission is a crime.

Because the duties of gas corporations pursuant to the Solar Water Heating and Efficiency Act of 2007 would be expanded by this bill and a decision or order of the commission would be required to implement the program requirements, a violation of these provisions would impose a state-mandated local program by expanding the definition of a crime.

The Solar Water Heating and Efficiency Act of 2007 requires the governing body of each publicly owned utility providing gas service to retail end-use gas customers to adopt, implement, and finance a solar water heating system incentive program to meet certain requirements.

By expanding the definition of a solar water heating system to include a facility meeting the specified requirements and qualifying the exclusion from the definition of a solar water heating system as being limited to a single-family residential solar pool heating system, the bill would impose a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for specified reasons.

Vote: majority. Appropriation: no. Fiscal committee: yes.

State-mandated local program: yes.

*The people of the State of California do enact as follows:*

1 SECTION 1. Section 2861 of the Public Utilities Code is  
2 amended to read:

3 2861. As used in this article, the following terms have the  
4 following meanings:

5 (a) “Gas customer” includes both “core” and “noncore”  
6 customers, as those terms are used in Chapter 2.2 (commencing  
7 with Section 328) of Part 1, that receive retail end-use gas service  
8 within the service territory of a gas corporation.

9 (b) “kW<sub>th</sub>” means the kilowatt thermal capacity of a solar water  
10 heating system, measured consistent with the standard established  
11 by the SRCC.

12 (c) “kWh<sub>th</sub>” means kilowatthours thermal as measured by the  
13 number of kilowatts thermal generated, or displaced, in an hour.

(d) “Low-income residential housing” means either of the following:

(1) Residential housing financed with low-income housing tax credits, tax-exempt mortgage revenue bonds, general obligation bonds, or local, state, or federal loans or grants, and for which the rents of the occupants who are lower income households, as defined in Section 50079.5 of the Health and Safety Code, do not exceed those prescribed by deed restrictions or regulatory agreements pursuant to the terms of the financing or financial assistance.

(2) A residential complex in which at least 20 percent of the total units are sold or rented to lower income households, as defined in Section 50079.5 of the Health and Safety Code, and the housing units targeted for lower income households are subject to a deed restriction or affordability covenant with a public entity that ensures that the units will be available at an affordable housing cost meeting the requirements of Section 50052.5 of the Health and Safety Code, or at an affordable rent meeting the requirements of Section 50053 of the Health and Safety Code, for a period of not less than 30 years.

(e) “New Solar Homes Partnership” means the 10-year program, administered by the Energy Commission, encouraging solar energy systems in new home construction.

(f) “Solar heating collector” means a device that is used to collect or capture heat from the sun and that is generally, but need not be, located on a roof.

(g) “Solar water heating system” means a solar energy device that has the primary purpose of reducing demand for natural gas through water heating, space heating, or other methods of capturing energy from the sun to reduce natural gas consumption in a home, business, or any building or facility receiving natural gas that is subject to the surcharge established pursuant to subdivision (b) of Section 2863, or exempt from the surcharge pursuant to subdivision (c) of Section 2863, and that meets or exceeds the eligibility criteria established pursuant to Section 2864. “Solar water heating systems” include multifamily residential, ~~municipal~~, governmental, educational, and nonprofit solar pool heating systems, but do not include single-family residential solar pool heating systems.

(h) “SRCC” means the Solar Rating and Certification Corporation.

1 SEC. 2. Section 2862 of the Public Utilities Code is amended  
2 to read:

3 2862. The Legislature finds and declares all of the following:

4 (a) California is heavily dependent on natural gas, importing  
5 more than 80 percent of the natural gas it consumes.

6 (b) Rising worldwide demand for natural gas and a shrinking  
7 supply create rising and unstable prices that can harm California  
8 consumers and the economy.

9 (c) Natural gas is a fossil fuel and a major source of global  
10 warming pollution and the pollutants that cause air pollution,  
11 including smog.

12 (d) California's growing population and economy will put a  
13 strain on energy supplies and threaten the ability of the state to  
14 meet its global warming goals unless specific steps are taken to  
15 reduce demand and generate energy cleanly and efficiently.

16 (e) Water heating for domestic and industrial use relies almost  
17 entirely on natural gas and accounts for a significant percentage  
18 of the state's natural gas consumption.

19 (f) Solar water heating systems represent the largest untapped  
20 natural gas saving potential remaining in California.

21 (g) In addition to financial and energy savings, solar water  
22 heating systems can help protect against future gas and electricity  
23 shortages and reduce our dependence on foreign sources of energy.

24 (h) Solar water heating systems can also help preserve the  
25 environment and protect public health by reducing air pollution,  
26 including carbon dioxide, a leading global warming gas, and  
27 nitrogen oxide, a precursor to smog.

28 (i) Growing demand for these technologies will create jobs in  
29 California as well as promote greater energy independence, protect  
30 consumers from rising energy costs, and result in cleaner air.

31 (j) It is in the interest of the State of California to promote solar  
32 water heating systems and other technologies that directly reduce  
33 demand for natural gas in homes and businesses.

34 (k) It is the intent of the Legislature to build a mainstream  
35 market for solar water heating systems that directly reduces demand  
36 for natural gas in homes, businesses, schools, nonprofit, and  
37 government buildings. Toward that end, it is the goal of this article  
38 to install at least 200,000 solar water heating systems on homes,  
39 businesses, and other buildings or facilities of eligible customer  
40 classes throughout the state by 2017, thereby lowering prices and

1 creating a self-sufficient market that will sustain itself beyond the  
2 life of this program.

3 (l) It is the intent of the Legislature that gas customers will  
4 recoup the cost of their investment through lower prices as a result  
5 of avoiding purchases of natural gas. Program participants will  
6 benefit from reduced solar systems prices resulting from increasing  
7 market volume economies and from additional system stability  
8 and pollution reduction benefits.

9 (m) It is the intent of the Legislature that this act will encourage  
10 the deployment of solar heating systems in both residential and  
11 commercial markets and in each end-use application sector in a  
12 balanced manner. It is the intent of the Legislature that the  
13 commission monitor and adjust incentives created by the act so  
14 that they are sufficient to significantly increase markets. It is the  
15 intent of the Legislature that the commission ensure that increased,  
16 uniform growth in each market sector is achieved through program  
17 incentives or structure adjustments that prevent overutilization of  
18 program resources by any single sector.

19 SEC. 3. Section 2863 of the Public Utilities Code is amended  
20 to read:

21 2863. (a) The commission shall evaluate the data available  
22 from the Solar Water Heating Pilot Project conducted by the  
23 California Center for Sustainable Energy. If, after a public hearing,  
24 the commission determines that a solar water heating program is  
25 cost effective for ratepayers and in the public interest, the  
26 commission shall do all of the following:

27 (1) Design and implement a program applicable to the service  
28 territories of a gas corporation, to achieve the goal of the  
29 Legislature to promote the installation of 200,000 solar water  
30 heating systems in homes, businesses, and buildings or facilities  
31 of eligible customer classes receiving natural gas service  
32 throughout the state by 2017. Eligible customer classes shall  
33 include single-family and multifamily residential, commercial,  
34 industrial, ~~municipal~~, governmental, nonprofit, and primary,  
35 secondary, and postsecondary educational customers.

36 (2) The program shall be administered by gas corporations or  
37 third-party administrators, as determined by the commission, and  
38 subject to the supervision of the commission.

1 (3) The commission shall coordinate the program with the  
2 Energy Commission's New Solar Homes Partnership to achieve  
3 the goal of building zero-energy homes.

4 (4) The commission shall determine an appropriate division of  
5 funds between solar water heating systems that are and are not  
6 solar pool heating systems.

7 (b) (1) The commission shall fund the program through the use  
8 of a surcharge applied to gas customers based upon the amount of  
9 natural gas consumed. The surcharge shall be in addition to any  
10 other charges for natural gas sold or transported for consumption  
11 in this state.

12 (2) The commission shall impose the surcharge at a level that  
13 is necessary to meet the goal of installing 200,000 solar water  
14 heating systems, or the equivalent output of 200,000 solar water  
15 heating systems, on homes, businesses, and buildings or facilities  
16 of eligible customer classes receiving natural gas service in  
17 California by 2017. Funding for the program established by this  
18 article shall not, for the collective service territories of all gas  
19 corporations, exceed two hundred fifty million dollars  
20 (\$250,000,000) over the course of the 10-year program.

21 (3) The commission shall annually establish a surcharge rate  
22 for each class of gas customers. Any gas customer participating  
23 in the California Alternate Rates for Energy (CARE) or Family  
24 Electric Rate Assistance (FERA) programs shall be exempt from  
25 paying any surcharge imposed to fund the program designed and  
26 implemented pursuant to this article.

27 (4) Any surcharge imposed to fund the program designed and  
28 implemented pursuant to this article shall not be imposed upon the  
29 portion of any gas customer's procurement of natural gas that is  
30 used or employed for a purpose that Section 896 excludes from  
31 being categorized as the consumption of natural gas.

32 (5) The gas corporation or other person or entity providing  
33 revenue cycle services, as defined in Section 328.1, shall be  
34 responsible for collecting the surcharge.

35 (c) Funds shall be allocated for the benefit of gas customers to  
36 promote utilization of solar water heating systems.

37 (d) In designing and implementing the program required by this  
38 article, no moneys shall be diverted from any existing programs  
39 for low-income ratepayers or cost-effective energy efficiency  
40 programs.

SEC. 4. Section 2864 of the Public Utilities Code is amended to read:

2864. (a) The commission, in consultation with the Energy Commission and interested members of the public, shall establish eligibility criteria for solar water heating systems receiving gas customer funded incentives pursuant to this article. The criteria should specify and include all of the following:

(1) Design, installation, and energy output or displacement standards. To be eligible for rebate funding, a residential solar water heating system shall, at a minimum, have ~~a~~ *an* SRCC OG-300 Solar Water Heating System Certification. Solar collectors used in systems for multifamily residential, commercial, ~~municipal~~, government, nonprofit, educational, or industrial water heating shall, at a minimum, have ~~a~~ *an* SRCC OG-100 Solar Water Heating System Certification.

(2) Require that solar water heating system components are new and unused, and have not previously been placed in service in any other location or for any other application.

(3) Require that solar water heating collectors have a warranty of not less than 10 years to protect against defects and undue degradation.

(4) Require that solar water heating systems are in buildings or facilities connected to a natural gas utility's distribution system within the state.

(5) Require that solar water heating systems have meters or other kWh<sub>th</sub> measuring devices in place to monitor and measure the system's performance and the quantity of energy generated or displaced by the system. The criteria shall require meters for systems with a capacity for displacing over 30 kW<sub>th</sub>. The criteria may require meters for systems with a capacity of 30 kW<sub>th</sub> or smaller.

(6) Require that solar water heating systems are installed in conformity with the manufacturer's specifications and all applicable codes and standards.

(b) No gas customer funded incentives shall be made for a solar water heating system that does not meet the eligibility criteria.

SEC. 5. Section 2865 of the Public Utilities Code is amended to read:



1     2865. (a) The commission shall establish conditions on gas  
2 customer funded incentives pursuant to this article. The conditions  
3 shall require both of the following:

4     (1) Appropriate siting and high-quality installation of the solar  
5 water heating system based on installation guidelines that maximize  
6 the performance of the system and prevent qualified systems from  
7 being inefficiently or inappropriately installed. The conditions  
8 shall not impact housing designs or densities presently authorized  
9 by a city, county, or city and county. The goal of this paragraph  
10 is to achieve efficient installation of solar water heating systems  
11 and promote the greatest energy production or displacement per  
12 gas customer dollar.

13     (2) Appropriate energy efficiency improvements in the new or  
14 existing home or facility where the solar water heating system is  
15 installed.

16     (b) The commission shall set rating standards for equipment,  
17 components, and systems to ensure reasonable performance and  
18 shall develop standards that provide for compliance with the  
19 minimum ratings.

20     SEC. 6. Section 2867.1 of the Public Utilities Code is amended  
21 to read:

22     2867.1. (a) Not later than July 1, 2010, the commission shall  
23 report to the Legislature as to the effectiveness of the program and  
24 make recommendations as to any changes that should be made to  
25 the program. This report shall include justification for the size of  
26 the rebate program in terms of total available incentive moneys as  
27 well as the anticipated benefits of the program in its entirety. To  
28 facilitate the understanding of how solar water heating systems  
29 compare with other clean energy and energy efficiency  
30 technologies, all documents related to and rebates provided by this  
31 program shall be measured in both kWh<sub>th</sub> and therms of natural  
32 gas saved.

33     (b) Not later than July 1, 2013, the commission shall complete  
34 a review of whether the rebate levels established by the commission  
35 will be sufficient to spur investment to reach the program goal of  
36 installing 200,000 solar water heating systems in homes,  
37 businesses, and other buildings or facilities receiving natural gas  
38 service throughout the state by 2017, and shall report to the  
39 Legislature on the results of its review. The report submitted

1 pursuant to this subdivision shall be submitted in compliance with  
2 Section 9795 of the Government Code.

3 SEC. 7. The commission shall require that a gas corporation  
4 or third-party administrator implement the program changes made  
5 to the Solar Water Heating and Efficiency Act of 2007 by this act  
6 not later July 1, 2013, and that marketing of the program as revised  
7 commence by August 1, 2013.

8 SEC. 8. No reimbursement is required by this act pursuant to  
9 Section 6 of Article XIII B of the California Constitution because  
10 a local agency or school district has the authority to levy service  
11 charges, fees, or assessments sufficient to pay for the program or  
12 level of service mandated by this act or because costs that may be  
13 incurred by a local agency or school district will be incurred  
14 because this act creates a new crime or infraction, eliminates a  
15 crime or infraction, or changes the penalty for a crime or infraction,  
16 within the meaning of Section 17556 of the Government Code, or  
17 changes the definition of a crime within the meaning of Section 6  
18 of Article XIII B of the California Constitution.